

**DISEASE PREVENTION BY REACTIVATION OF THE THYMUS**

**ABSTRACT**

The present disclosure provides methods for prevention and/or treatment of disease or  
5 illness in a patient by stimulating a patient's immune system through reactivation of the thymus.  
The patient's thymus is reactivated by interruption or ablation of sex steroid mediated signaling  
to the thymus, such as through the administration of LHRH agonists, LHRH antagonists, anti-  
LHRH receptor antibodies, anti-LHRH vaccines, anti-androgens, anti-estrogens, selective  
estrogen receptor modulators (SERMS), selective androgen receptor modulators (SARMS),  
10 aromatase inhibitors, or various combinations thereof. Non-limiting examples of illnesses or  
diseases that may be prevented or treated using the methods of the invention are those caused by  
viruses, bacteria, fungi, parasites, prions, cancers, allergens, asthma-inducing agents, or "self"  
proteins and other antigens which cause autoimmune disease. In addition, optional gene therapy  
utilizing hematopoietic stem cells, lymphoid progenitor cells, and/or myeloid progenitor cells  
15 may be used in which the cells are administered to a patient in conjunction with treatment to  
reactivate the patient's thymus.